Appln. No.: 10/534,342 Amendment Dated July 1, 2008 Reply to Office Action of April 1, 2008

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application Listing of Claims:

1. (Currently Amended) A plasma display device provided with a plasma display panel comprising a plurality of columns of discharge cells having one of a single color and multiple colors, and a phosphor layer disposed in each of the discharge cells, the phosphor layer having a color corresponding to the each discharge cell for emitting light when excited by ultraviolet rays, wherein

the phosphor layer includes a green color phosphor, the green color phosphor comprising at least one kind selected from among phosphor materials defined by <u>any one of the formulas selected fromgeneral formulae of</u>

 $\frac{formula}{M_{1-a}}M_{1-a} \ (Ga_{1-x}Al_x)_2 \ O_4:Mn_a \ (where "M" denotes one of $\frac{Zn, Mg,}{Mg}$ Ca and Sr_x <math display="block">\frac{0.01 \le a \le 0.06, \ and \ 0.1 \le x \le 1.0}{M_{1-a}},$

formula $(Y_{1-a-y}Gd_a)$ $(Ga_{1-x}AI_x)_3$ $(BO_3)_4:Ce_y$, Tb_y (where $0 \le a \le 1$, $0.1 \le x \le 1.0$, $0.02 \le y \le 0.1$, $0.08 \le 1-a-y \le 0.98$),

formula $(Y_{1-a-y}Gd_a)$ BO₃:Tb_y (where $0 \le a \le 1$, $0.02 \le y \le 0.4$, $0.08 \le 1$ -a-y ≤ 0.98), and

 $\frac{\text{formula}}{\text{0.02} \le y \le 0.4, \, 0.08 \le 1-a-y \le 0.98}. \quad \text{(Ga}_{1-x}\text{Al}_x)_5 \quad \text{O}_{12}\text{:Tb}_y \quad \text{(where} \quad 0 \le a \le 1, \quad 0.1 \le x \le 1.0, \\ 0.02 \le y \le 0.4, \, 0.08 \le 1-a-y \le 0.98).$

2. (Currently Amended) A plasma display device provided with a plasma display panel comprising a plurality of columns of discharge cells having one of a single color and multiple colors, and a phosphor layer disposed in each of the discharge cells, the phosphor layer having a color corresponding to the each discharge cell for emitting light when excited by ultraviolet rays, wherein

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the phosphor layer <u>is a mixed phosphor and includes a green color phosphor, the green color phosphor being a mixed phosphor comprising: a mixture of a phosphor material defined by a general formula of</u>

a phosphor of formula M_{1-a} ($Ga_{1-x}AI_x$)₂ O_4 :Mn_a (where "M" denotes one of \overline{Zn} , Mg, Ca and Sr, $0.01 \le a \le 0.06$, and $0.1 \le x \le 1.0$), and

a phosphor of formula and one of phosphor materials defined by general formulae of $(Y_{1-a-y}Gd_a)$ $(Ga_{1-x}AI_x)_3$ $(BO_3)_4:Tb_y$ $(where <math>0 \le a \le 1, 0.1 \le x \le 1.0, 0.02 \le y \le 0.1, 0.08 \le 1-a-y \le 0.98)$, and

<u>a phosphor of formula $(Y_{1-a-y}Gd_a)$ $(Ga_{1-x}AI_x)_3$ $(BO_3)_4:Ce_y$, Tb_y (where $0 \le a \le 1$, $0.1 \le x \le 1.0$, $0.02 \le y \le 0.1$, $0.08 \le 1-a-y \le 0.98$).</u>

3. (Currently Amended) A plasma display device provided with a plasma display panel comprising a plurality of columns of discharge cells having one of a single color and multiple colors, and a phosphor layer disposed in each of the discharge cells, the phosphor layer having a color corresponding to the each discharge cell for emitting light when excited by ultraviolet rays, wherein

the phosphor layer <u>is a mixed phosphor and</u> includes a green color phosphor, the green <u>color phosphor being a mixed phosphor</u> comprising: a mixture of a phosphor material defined by a general formula of

a phosphor of formula M_{1-a} ($Ga_{1-x}AI_x$)₂ O_4 :Mn_a (where "M" denotes one of $\frac{Zn}{Mg}$, Ca and Sr_{1} 0.01 $\leq a \leq 0.06$, and $0.1 \leq x \leq 1.0$) and

a phosphor of formula another phosphor material defined by a general formula of $(Y_{1-a-y}Gd_a)$ BO₃:Tb_y (where $0 \le a \le 1$, $0.02 \le y \le 0.4$, $0.08 \le 1-a-y \le 0.98$).

4. (Currently Amended) A plasma display device provided with a plasma display panel comprising a plurality of columns of discharge cells having one of a single color and multiple colors, and a phosphor layer disposed in each of the discharge cells, the phosphor layer having a color corresponding to the each discharge cell for emitting light when excited by ultraviolet rays, wherein

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the phosphor layer <u>is a mixed phosphor and includes a green color phosphor, the green color phosphor being a mixed phosphor comprising: a mixture of a phosphor material defined by a general formula of</u>

a phosphor of formula M_{1-a} ($Ga_{1-x}Al_x$)₂ O_4 :Mn_a (where "M" denotes one of \overline{Zn} , \overline{Mg} , Ca and Sr, $0.01 \le a \le 0.06$, and $0.1 \le x \le 1.0$) and

another phosphor material defined by a general formula of a phosphor of formula $(Y_{1-a-y}Gd_a)_3 \quad (Ga_{1-x}Al_x)_5 \quad O_{12}: Tb_y \quad (where \quad 0 \leq a \leq 1, \quad 0.1 \leq x \leq 1.0, \quad 0.02 \leq y \leq 0.4, \\ 0.08 \leq 1-a-y \leq 0.98).$

5.-6. (Cancelled)

7. (Currently Amended) A plasma display device provided with a plasma display panel comprising a plurality of columns of discharge cells having one of a single color and multiple colors, and a phosphor layer disposed in each of the discharge cells, the phosphor layer having a color corresponding to the each discharge cell for emitting light when excited by ultraviolet rays, wherein

the phosphor layer includes any of a green color phosphor, a blue color phosphor and a red color phosphor,

the green color phosphor being a mixed phosphor comprising: comprises one of

a spinel system of formula M_{1-a} ($Ga_{1-x}Al_x$)₂ O_4 : Mn_a (where "M" is at least one of Ca and Sr, $0.01 \le a \le 0.06$, and $0.1 \le x \le 1.0$), or

a phosphor of yttria system comprising formula $(Y_{1-a-y}Gd_a)$ $(Ga_{1-x}Al_x)_3$ $(BO_3)_4$: Tb_y (where $0 \le a \le 1, 0.1 \le x \le 1.0, 0.02 \le y \le 0.1, 0.08 \le 1-a-y \le 0.98$), and

formula $(Y_{1-a-y}Gd_a)$ $(Ga_{1-x}Al_x)_3$ $(BO_3)_4$: Ce_y , Tb_y (where $0 \le a \le 1$, $0.1 \le x \le 1.0$, $0.02 \le y \le 0.1$, $0.08 \le 1$ -a-y ≤ 0.98), and

 $\underline{\text{formula } (Y_{1-a-y}Gd_a) \ BO_3: Tb_y \ (\text{where } 0 \leq a \leq 1, \ 0.02 \leq y \leq 0.4, \ 0.08 \leq 1-a-y \leq 0.98, \ \text{and}}$

 $\frac{\text{formula} \quad (Y_{1-a-y}Gd_a)_3 \quad (Ga_{1-x}Al_x)_5 \quad O_{12}:Tb_y \quad (\text{where} \quad 0 \leq a \leq 1, \quad 0.1 \leq x \leq 1.0,}{0.02 \leq y \leq 0.4, \, 0.08 \leq 1\text{-a-y} \leq 0.98), \, \text{or}}$

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a spinel system of formula M_{1-a} ($Ga_{1-x}Al_x$)₂ O_4 : Mn_a (where "M" is at least one of Ca and Sr, $0.01 \le a \le 0.06$, and $0.1 \le x \le 1.0$), and

a phosphor of yttria system comprising formula $(Y_{1-a-y}Gd_a)$ $(Ga_{1-x}Al_x)_3$ $(BO_3)_4$: Tb_y (where $0 \le a \le 1$, $0.1 \le x \le 1.0$, $0.02 \le y \le 0.1$, $0.08 \le 1-a-y \le 0.98$), and

formula $(Y_{1-a-y}Gd_a) BO_3: Tb_y$ (where $0 \le a \le 1, 0.02 \le y \le 0.4, 0.08 \le 1-a-y \le 0.98$, and

formula $(Y_{1-a-y}Gd_a)_3$ $(Ga_{1-x}Al_x)_5$ $O_{12}:Tb_y$ (where $0 \le a \le 1$, $0.1 \le x \le 1.0$, $0.02 \le y \le 0.4$, $0.08 \le 1-a-y \le 0.98$), and

the blue color phosphor is a phosphor of BaMgAl₁₀O₁₇:Eu or BaSrMgAl₁₀O₁₇:Eu, and

the red color phosphor is a phosphor of Y_2O_3 : Eu or $(Y, Gd)BO_3$: Eu.group phosphor, a yttria group phosphor and a mixture of the spinel group phosphor and the yttria group phosphor,

the blue color phosphor comprises one of phosphor materials of Ba Mg Al $_{10}$ O $_{17}$:Eu and Ba Sr Mg Al $_{10}$ O $_{17}$:Eu, and

the red color phosphor comprises one of phosphor materials of Y_2 O_3 :Eu and $(Y, Gd)BO_3$:Eu.

8.-10. (Cancelled)

11. (Previously Presented) The plasma display device according to claim 2, wherein values "a", "x" and "y" in any of the general formulae of $(Y_{1-a-y}Gd_a)$ $(Ga_{1-x}Al_x)_3$ $(BO_3)_4$: Tb_y and $(Y_{1-a-y}Gd_a)$ $(Ga_{1-x}Al_x)_3$ $(BO_3)_4$: Ce_y , Tb_y are within ranges of $0 \le a \le 1$, $0.1 \le x \le 1$ and $0.02 \le y \le 0.4$ respectively.